

Seeds of all descriptions are parched not only to roast them, but to dehydrate them somewhat, rendering grinding easier. The kernels of corn, etc., are tumbled about with live coals in the parching tray by a swinging, sinuous, rotary movement. Finally, the lighter charcoal is separated from the grains with the same motion, throwing it up from the far edge of the tray and blowing it away. Any charcoal that remains is picked out. ²⁵²

Cooking is usually done in the clay vessels (*hamdagwetaadla*; *hamdi*, clay pot) but boiling (*tulúmtga*) in baskets is carried on at the same time. ^[415] Small stones, heated red, are dropped, with the aid of a tongs, into a basket filled with water. These are replaced by others when cool. The food is stirred in when the water is boiling; the remaining stones are picked out when it is cooked.¹

Green willow tongs are used on hot stones, but better wood, such as ash, may be used in tongs for handling hot or prickly objects, stirring stews, etc. Tongs (*adida*) are simply green branches, flattened on one side, with a kerf at the midpoint, so that they can be bent double, and bound until dry. They measure 40 to 50 cm. long; a smaller specimen is 20 cm. Crooked sticks and convenient twigs are also used for stirring, ⁴¹² as forks, etc. Horn ladles are used in cooking as well as in eating. ⁴¹⁵

A cooking vessel (*múltitgwétalúmia*, cactus, something, boil) is sometimes improvised from the barrel cactus (*múltit*, possibly *Echinocereus*) when on hunting expeditions. Occasionally the same device is used at home. The spines are burned off, one end cut away, and the pulp removed, so that it can be used for stone-boiling. "Wild cabbage" ²⁵² (*ak'tad*), cornmeal, meat, etc. is cooked in this.

Green corn is usually cut or shelled from the cob and ground to a pulp on the grinding slab. Water is brought nearly to a boil before the corn is slowly added, stirring it into the water with a stick while the pot remains on the fire. When it comes to a boil, it is set aside. Corn is not boiled on the cob as a rule.

Green corn is cut from the cob, mashed, and boiled with unripe pumpkin cut into small chunks.

Squash flowers are boiled until the mass cannot be reduced further,² they are then fished out with a twig and mashed to a pulp on the grinding slab. Meanwhile green corn, cut from the cob, is boiling in the liquor. The pulp is then added and the whole is boiled to make a sweet dish.

¹Food is never cooked in a skin or a paunch.
²V. Lamholtz, (a), II, 100.

171 The grinding slab or metate of the Pueblos is also found in Southern
412 California and the Basin. Among the non-Pueblo peoples it is used to
some extent by the Pima, Navaho, Havasupai, Yavapai, Mohave,

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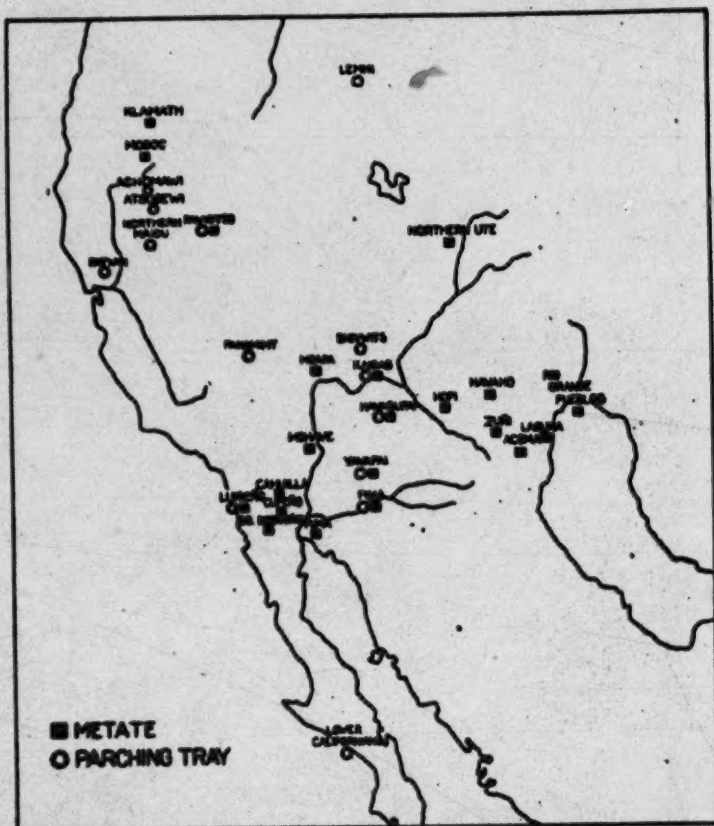


Fig. 8. Distribution of the Metate and Parching Tray.

Kaibab, Moapa, Northern Ute, Paviotso, Klamath, Modoc, Cahuilla, Cupeño, Luiseno, Southern Diegueño, Yuma, and undoubtedly by others in their vicinity.¹ Most of these people, if not all, use stone or wooden

¹Russell, (4), 98, 108; Hailsham, (a), 44; Franciscan Fathers, 62, 219; Carver, 326; *Handbook of American Indians*, I, 821; Powell, 127; Lewis, (1), 304; Barrett (a), 242; Kroeber, (a), 40, 51, 52; Spier, 308; Spier, (a), 334; Trippel, 376.

MANUFACTURES

BASKETRY

- 4/5 Baskets are the most important domestic utensils. A dozen or so may be found in each household; two or three burden baskets, half a dozen trays holding foodstuffs, one or two parching trays, a water bottle or two, and in the old days, boiling baskets. Basketry is entirely women's work, to which they devote most of their spare time, particularly the long midday period when household duties are light. Wherever women [462] gather, basketry may be seen; the hostess working at her products, the



Fig. 6 a (80.2-1634), b (80.2-1651), c (80.2-1280), d (80.2-1237), f (80.2-1643), g (80.2-1648). Havasupai Basketry Forms. a, Burden basket; b, Tray; c, Boiling Basket; d-g, Water bottles.

285 guests plucking and preparing twigs from the nearby bushes, or more commonly helping the hostess at such tasks. Women do not usually carry their unfinished wares further than a neighbor's camp; not even the coiled baskets which are worked on only intermittently and regarded much as our women do embroidery. Twined baskets are worked on more concurrently; a tray basket, depending on its size, may be completed in a few days; a burden-basket is worked at off and on for a month. They consider twining hard work because continual pulling at the stiff wefts bruises the fingers badly. Expertness is recognized and prized; a few women are widely acknowledged as preëminent.

[text continues on p.127]

1: Spier E-5 (1918) 1928

NT14 Plateau Yumans NT14
Havasupai

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Fig. 7 (80.2-1634, 1235). Burden Baskets.

1:Spier E-5 (1918) 1928

NT14 Plateau Yumans NT14

Havasupai

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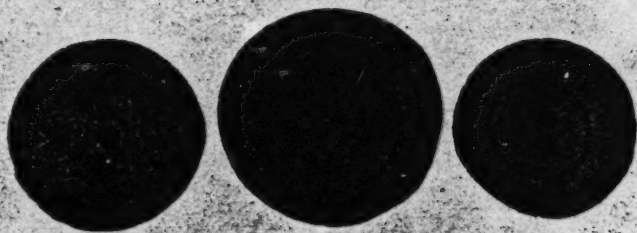


Fig. 8 (30.2-1247, 1648, 1654). Basketry Trays.

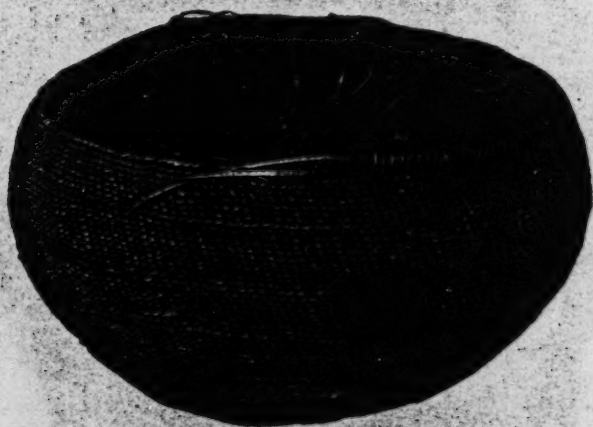


Fig. 9 (30.2-1250). A Boiling Basket.

Six types (Fig. 6) are recognized: burden baskets (*gədd'k*), water bottles (*ədwa*), shallow bowls or trays in twine (*gədd'ə'*) and coil (*gə'd'*) ²⁸⁵
stone-boiling bowls (*ha'agwəld'ə'mia*, water, something, boil) in both ⁴¹⁵
techniques, and parching trays (*gəddu'ulad*, lit. old twined tray). Burden baskets, water bottles, and parching trays are made with twine weave.

While the weaving is quite coarse and uneven, with the exception of a few coiled pieces, many of the baskets are surprisingly water-tight. However, most baskets for liquids are rendered tight with some sort of coating, mesquit juice or cornmeal mush. Trays in which mush is placed soon become impervious; the mesh is sometimes rubbed into the interstices with that end in view. Small water-tight trays are used as pannikins to drink from. Water bottles receive a heavy coating of pison pitch as well as soapweed paste.

Burden baskets are conical; some have a slight reverse curve near ⁴⁸²
the apex which produces a nipple effect (Fig. 7). Two bags to receive the carrying band are inserted in the side of the basket somewhat ⁴¹⁵
more than a third of the distance from the rim. After the basket is ²⁸⁵
completed pressure is applied to make this side flat so that the basket will not roll from side to side on the back. These baskets are generally made in three sizes: that used by the women measures about 60 cm. in diameter at the mouth, and 45 cm. in height; a smaller size used by half-grown girls is about 50 cm. by 45 cm.; that of small girls about 35 cm. by 32 cm.

Trays are used to hold seeds, meal, fruit, mush, and a host of other ²⁸⁵
foodstuffs (Fig. 8). Twined trays are roughly of two sizes, although the ⁴¹⁵
variation is considerable; 40 cm. in diameter by 9 cm. in depth, and a smaller size 30 cm. by 6 cm. Occasionally these are quite conical. Fewer coiled trays are made: these are about the same size. They are somewhat flatter on the bottom than the twined ware. Parching trays are simply old twined trays, as their name implies, which are given a protective facing. Only the larger size of tray is used for this purpose.

Stone-boiling disappeared years ago so that descriptions of the ²⁵²
baskets used for this process are somewhat vague. Apparently they were the same size as trays but quite deep, really bowls. One basket said to resemble them is 38 cm. in diameter and 23 cm. deep, quite globular, with a mouth slightly smaller than the body (Fig. 9). Smaller coiled bowls, such as those now sold to tourists, may have been used for stone-boiling. Cushing figures a coiled boiling basket, bottle-shaped, with rounded base and wide mouth.¹

¹(b), Fig. 503. This shows the bundle foundation which my informants denied was ever used.

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Water bottles are biconic with gentle reversed curves giving a nipple effect to the pointed base and narrow mouth (Fig. 10). These are about 35 cm. in diameter and 25 cm. in height. Two thongs are inserted just above the maximum diameter to take the burden band. Bottles (*edwagatag'dad*) are also made without the lower cone, that is, with a flat or rounded base.¹ Occasionally this flat base is pushed inward. A third type was used when traveling afoot. It has an hourglass shape, with a flat bottom, and the upper part brought to a narrow mouth. This was

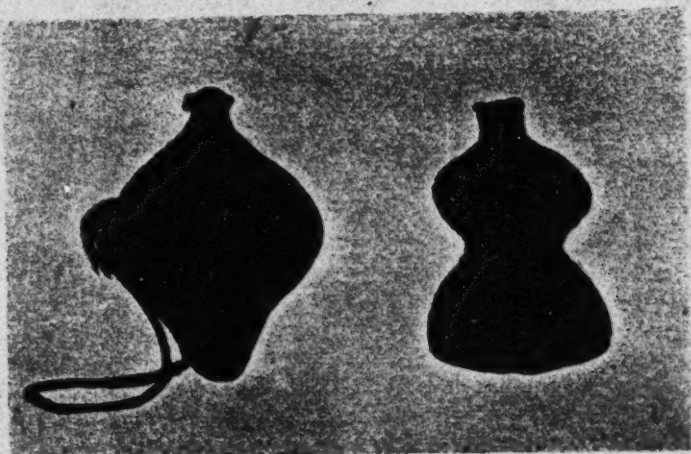


Fig. 10 (50.2-1237, 1645). Two Types of Basketry Water Bottle.

carried at the small of the back by a thong encircling both the wearer's waist and the constricted part of the bottle.² A bottle is stoppered with leaves or a corncob.

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The best material for twined baskets is acacia twigs (*td'dj'dad*, *Acacia greggii* Gray) which are gathered when green. If picked dry, or if dried in storage, they are soaked two or three nights before using. Cottonwood and willow twigs are inferior. These, too, are gathered green. They may be used for either warp or weft, or in combination with acacia. Mesquite is never used.

[11] ¹Two figured by Mason, O. T., as Havasupai have the coil technique and shape of neck of Navaho specimens, (O.), Plate 22, Figs. 4 and 5, see p. 238.]

²Similar bottles occur among San Carlos Apaches (50-5732) and Paiute (Peabody Museum, Salem). The Esutl are also accustomed to carry small objects at the small of the back in a cloth tied around the waist. The Huichol have a similar double water gourd (Lomholt, (a), II, 225).

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531 right hand of the weaver twisting the warps turns outward on the wrist (which is perhaps easier than turning inward), carrying the forward strand away and down, and the back strand forward and up. With the stiff warps that are in use, each stitch inclines upward to the right both in the diagonal and plain twining. But more important is the overlap produced in diagonal twine of the rear end of each stitch with the forward end of that in the row below. This results in a diaper effect running upward to the right. This in itself would suggest that when decoration is introduced, the diagonal lines should move forward in the direction of weaving. Furthermore, there is no continuous diagonal line toward the left, for these stitches are separated from one another by short intervals of bare warp. Of course, it is no more difficult to weave the diagonal lines running toward the left, but the effect is not so pleasing.¹

[177] It is difficult to say how coil baskets were decorated, since most of them are made now to conform to tourist demands. One tray in use has a single horizontal band, for the most part one coil wide but the width of two coils at regular intervals. Short lines appear at other points. The trade baskets have in part the designs found on twine ware, with the addition of units copied from the products of other tribes seen at the stores. As with the twine baskets, there is very little attempt at design composition and diverse units are crowded on the same basket without regard for their appropriateness. According to the Indians, baskets with much decoration sell better than others, but this is quite contrary to their own feeling that those which are sparsely decorated are preferable.

The hoods of the cradleboards (Fig. 55) and the seed beaters (Fig. 3) are also basket work.

POTTERY

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[177] Clay vessels, more often used in cooking than baskets, were displaced by metal products about 1870. The only native ware is a small, unlippped and undecorated, coarse, brown pot of the type common to all the nomadic tribes of the Southwest and adjacent sections of California (Fig. 16). The pot (*hamdt*) is globular, with a slightly constricted neck turning out in a lip (*ya'*, neck and lip?) sufficiently large to permit lifting with the finger tips. The size is reported as usually 30 cm. in greatest diameter 23 cm. in height, and 23 cm. across the mouth, but ranging down to a height of 22 cm. and a diameter of 12 cm. These lack handles or lugs.²

¹See (1). T. Mason's diagrams, (h), Figs. 19 and 20.

²Fig. 16 represents a vessel excavated at the Lagoon north of Pine Spring. It is of the type described, but it cannot be certainly ascribed to the Havasupai because of its somewhat greater size and handles.

323 Pots are made by women alone. The best clay, the color of adobe,
 317 occurs in a deposit located at Pine Spring west of Cataract Canyon.
 [462] As this is very hard, chunks must be pried off with a deer antler pick,
 and are then reduced to a powder by crushing between two stones. Fine
 stones, procured from an ant hill, are added, the whole being kneaded
 with water into a stiff dough. Cylinders, 2 cm. in diameter, are rolled
 323 out between the palms and coiled in a clockwise direction on a tray
 basket, patted on top the while with a small, flat, smooth stick to make

[H15]



Fig. 16 (50.2-1668). A Coarse Undecorated Vessel of Clay.

them adhere. Both basket and stick are kept wet with a concoction of boiled antler, weed roots, and other ingredients. When the flat coil reaches a diameter of 20 cm. the sides are built up by coiling in the same manner; the potter supporting them with a smooth, round pebble inside while the exterior is paddled. When the vessel is complete, this same pebble is used to smear the concoction over the inner and outer surfaces, rubbing vigorously, in order to render the clay hard and prevent cracking. The vessel walls are of a uniform thickness, 0.7 to 1 cm.; the lip is no thinner. The completed vessel is set in the sun for two days or until it has thoroughly dried. A pile of dry wood of any sort, 70 cm. or more in height, is prepared and set alight early in the morning. After it

Campfires on the plateau are not banked at night, but heaped with sufficient wood to last until morning. 372

Ladles. These are said to be made of mountain sheep horn (*mukwa-viti*) alone, although Cushing saw small wooden ladles.¹ The typical ladle (*mukwa*) has a round, shallow bowl, 12 cm. in diameter, with a curved handle. A smaller dipper, 15 cm. long, has an oval bowl with a short handle (20ab). After the handle is hacked and trimmed to size, the horn is soaked and buried in wet sand from three to six nights or until it is fairly soft. The grease of the mountain sheep and the mountain lion are rubbed into the horn, which is warmed at the fire. The handle is then bent into shape. To form the bowl, the top of the horn is split,



Fig. 20 a (50.2-1585), b (50.2-1217). Mountain Sheep Horn Ladles.

the sides wedged apart with a stick, and the edges trimmed. The bowl is filled with dirt, carefully propped up, and laid aside for a week to harden. As these are used to serve hot liquids, the bowl relaxes to its original shape. The Hopi, who take these ladles in trade, cut disks from them, which they flatten and bore for spindle whorls.² [439]

Gourds. Gourds (*a'ndle*), grown in the canyon, are infrequently used as water vessels. These are a long-necked variety, 25 cm. or less in diameter. The stem end of the neck is cut off square and stoppered with grass, crushed cedar bark, or a corn cob.³ A handful of kernels is placed in the new gourd and given an occasional shake to remove the loose fibers. 415

¹Cushing, (a), 380.

²Such ladles are widely distributed: Hopi and all other pueblos (Hough, (a), 378); Paiute example in the Peabody Museum, Salem, Mass.; Wind River Shoshoni (Lewis, (b), 309.)

³The Mohave use similar gourds to carry grain on journeys (specimen in Museum of Anthropology, University of California). [171]

- 415 Gourds having an hourglass shape are used as water jugs on foot journeys. They are carried at the middle of the back, held by a rope which passes around the traveler's waist and the constricted portion of the gourd.

324 Knives. The stone knife (*kwaip'd'i*; also arrowhead) is lanceolate, as large as one's hand, sharp on both edges, somewhat pointed, but with a blunt base. Obsidian is preferable, but flints are used. It is not known whether such knives were hafted: they are no longer made. Another knife (50.2-1219) is a broad flake, with long chips struck from one face only. This is conveniently held between thumb and forefinger.

412 Cutting movements, as in wood working, are always toward the body.

Stone is not drilled; drilled beads are obtained elsewhere, as among the Hopi. Holes are drilled in wood, bone, or horn (as in the arrow wrench) with an arrowhead, revolving the shaft between the palms.

- 285 *Sleeping Mats*. These (*itkedldkw'ed*) are made of strips of cedar or juniper bark (*itkedld*) pounded until soft, but not rolled into rope. The larger mats are rectangular, 1 m. by 75 cm., woven with both warp and continuous weft of bark. The ends are bound by stitching with a cord at 2 cm. intervals. Smaller mats are used, and owned, by children. These [422] are somewhat elliptical, with nearly parallel sides. The warp, coiled from center outward, is crossed by twined wefts (cords) placed radially. Neither blankets nor clothing are made of cedarbark.

- 283 *Rope*. Ropes are usually of yucca fiber, but tanned hide is also used. The inner leaves of a dead broad-leaf yucca are selected, pounded singly between two smooth stones, and flexed with the fingers to remove the connective tissue. The fibers are finally separated by continuing the flexing of a bundle of such leaves rendered pliable with water.

Yucca ropes are three- to six-ply, usually three. These are braided of bundles of fiber; the bundles are never rolled into strands. New lengths are introduced, as required, by simply laying them between two crossing elements. If the fiber is dampened the rope will shrink tight. Three-ply ropes are commonly about four meters long and 1.5 cm. in diameter.

The hide ropes may be of deer, antelope, or mountain sheep skin; the last is strongest.¹ These are also braided of three to six strands. One seven-ply specimen (50.2-1231), nearly six meters long, is flat (0.5 by 1.2 cm.) and the plaiting presents a herring-bone pattern on both sides.

¹Curiously my informant referred to all articles derived from this animal as best.

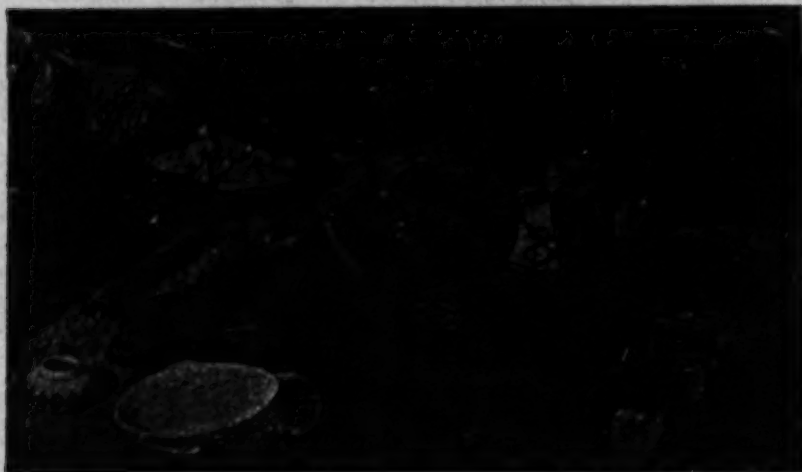
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Winter scene showing our stone cottage, later washed away in a flood. To the far right is the outdoor toilet. From the high wall on the right came the boulders and trees that crashed down on us during an earlier flood.

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Havampai woman, wearing saraw about her shoulders, preparing to bake thin, crisp sheets of bread on her baking stone.

[p. 116 F]

While Eastern construction workers were
erecting Mooney Falls, this load of al-
alfa would have brought the woman five
dollars

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Alisal trimmed for the roasting pit.
pick is used to pry plant from the
ground. Hatchet-like knife is used in
trimming

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American Museum of Natural History

[p. 116 0]

194 *People of the Blue Water*

649 And the gods spoke—through a storm cloud—deciding the issue
776 with one swift blow. Work was progressing toward completion
when a flood roared down the canyon, wiping out the widened,
costly trail, demolishing the equipment that had disfigured Mooney
Falls, and causing the firm such financial loss that the project was
abandoned. The white men rode out, one afternoon, over the
hastily repaired trail, leaving the canyon to the people to whom it
rightfully belonged.

776 The power of the gods was manifest once more, renewing cour-
age and inspiring the whole village with fresh vitality. The people
worked in homes and gardens, their former cheerfulness restored
by this assurance that the gods who had led them to the canyon
and taught them the skills by which they had survived, were still
able to defend them.

Their faith in their gods was so sincere, and they spoke of them
with such candor, that I might easily have learned how much of
their culture the Havasupai attributed to this source. To meet their
spiritual needs, they had their god-given songs and dances. To
care for their sick, the gods had taught them how to make the
soboles and the songs to be used in the healing ceremony. When
they needed fire, the gods, through Coyote, had lighted the torch.
These things I knew, but there was so much that I had failed to
learn. They traced every skill to a time in the dim past when Those
of Old were instructed by the deity. Now it was all too evident
that some of these skills were falling into disuse.

177 They had been pottery makers but tin cans and lard pails had
285 taken the place of clay utensils. Happily, baskets were still plenti-
415 ful in every home. They were strong and somewhat coarse in order
253 to stand up under the rough usage as toasting baskets, burden
baskets, water bottles and general containers. However, the water-
tight cooking basket, used by their ancestors, into which heated
stones were dropped to keep the contents boiling, was now a relic
of the past. The imperfectness with which these cooked the food
and the constant attention they demanded, doomed them to this
fate. As the stones had cooled, they were replaced with others fresh

The Gods Speak Again 195

from the bed of hot coals. Broken pieces of stone always had to be picked from the food. So these cumbersome vessels were discarded as soon as other containers were available. But the horn spoon, shaped from the horn of mountain sheep, was still in use. Making it was a tedious and lengthy process. The horn was soaked in water, then buried in moist sand until somewhat softened. The next steps—heating, oiling and fashioning the horn into a spoon or ladle—required the skill of long practice. Tin cups, obtained at the trader's store in Seligman, were gradually supplanting the horn spoon, and another skill would soon be forgotten.

In a report on conditions in the canyon for the year 1898, the acreage in cultivation and under fence was estimated at three hundred twenty-five. One thousand bushels of corn and fifty bushels of wheat were grown that year, in addition to an abundance of vegetables and fruits. And the tribe had a cash income of four thousand dollars. At that time, tribal affairs were managed almost wholly by the chief and head men, although the school had been in operation for three years. From the seeds their gods had given them, the Havasupai had reaped their independence.

They preferred their old system of barter and trade to a cash sale. The Navaho were silversmiths and weavers of warm blankets, while the friendly Hopi and Walapai had ponies or goods to trade. A Havasupai could measure out a small tray of beans and—after endless good-natured bargaining—exchange his beans for a fine Navaho blanket. Two spirals of their dried pumpkin or squash had the same value.

Every man of consequence kept a pony in his dooryard and sprang to its back to ride the short distance to a neighbor's wickiup. So horses were eagerly sought. A Hopi pony cost a large well-tanned buckskin or as much shelled corn as a large burden blanket could hold. A man traded, or made gifts, for the girl he wished to marry, presenting her parents with ponies, blankets or grain to the value of about twenty dollars, if the girl was popular. Ten dollars in trade was a fair price for a lazy girl.

The men, of necessity, had developed skills. The tribe needed to

2. James T. S. (ca. 1905) 1903

NT14 Plateau Tumbas NT14

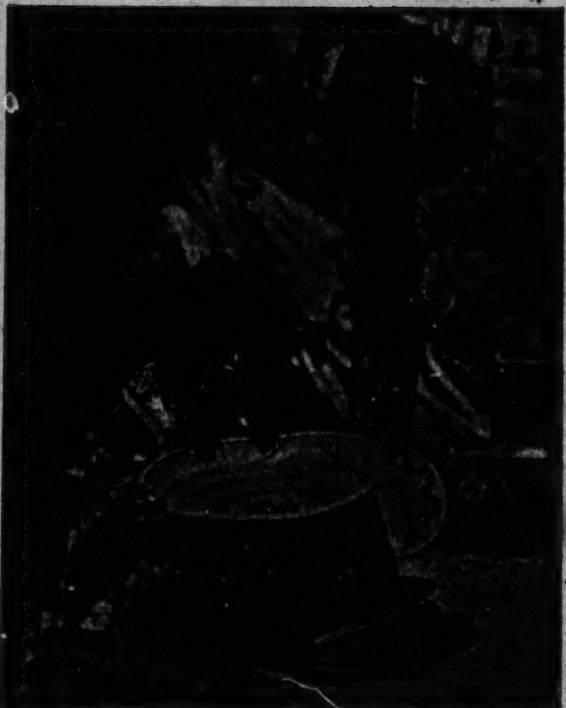
Havasupai
Walapai

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A WALLAPAI WOMAN POUNDING ACORNS.

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CHICKAPAHAGIE'S WIFE, A HAVASUPAI, PARCHING
CORN IN BASKET.

[Facing p. 210]

3. James T-5 (ca. 1900) 1903
 NT14 Pictou Yumans NT14
 Havasupai



LANOMAN'S WIFE. A HAVASUPAI.

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WALUTHANCA'S DAUGHTER, WITH ESUWA, GOING
 FOR WATER.

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[Facing p. 230]

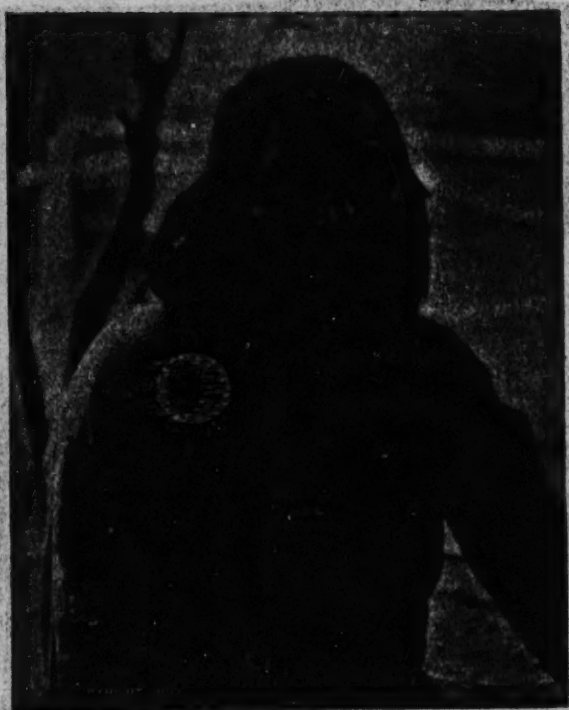
S. James T-6 (ca. 1900) 1903
NT14 Plateau Yuma NT14
Havasupai



SINYELA, WITH ESUWA, GOING FOR WATER.

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ROCK JONES, LEADING MEDICINE MAN OF
HAVASUPAI.

[Facing p. 256]

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● 415
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Fig. 11. Sweat lodge and bathers. A, Earth-covered sweat lodge, with blankets and canvas cover thrown back from doorway. B, Juan Sinyella entering lodge, while previous occupants rest under brush shade at left and await next turn. C, Duke Iditcava inside sweat lodge, taking water from can to sprinkle on hot rocks. D, Duke under brush shade after leaving sweat lodge.

881 wife and mother, and to follow the proper observances and taboos through-
515 out her life, so that she may remain young, attractive and vigorous.
302

It is believed that the face of a girl while menstruating or following childbirth must be washed in cold water because hot water causes wrinkles. Premature greyness will result if a girl touches her hair while it is wet, and she is also forbidden to eat before her hair dries. (An informant explained that failure to observe these rules causes white women to turn grey while young. Informants frequently made comments of this kind to explain the premature aging of white women who were thought to fare less favorably than the Havasupai women.) The girl's mother dries her hair by catching strands in her fingers and flipping the ends with a stick.

Spier (1928, 326) describes a bath and shampoo on the first of the four days during which the puberty ritual is observed. He notes that, "A girl should run to the east at dawn each of the four days. Then she may wash her hair and body." Present informants state that a pubescent girl should be bathed on four successive mornings, beginning with the first day of her menses. Subsequently, except following childbirth, a girl should not bathe until four days after commencement of her menses. She arises while it is still dark, bathes herself and shampoos her hair in yucca suds.

[386] Following her bath, a girl's body and face are painted by her mother with powdered red ocher, or with liquid red dye from the fruit of the opuntia cactus.

[641] If powdered ocher is used, no deer fat or other grease is mixed with it, because a girl's face would remain oily like the fat. At present, cosmetic
[177] cream, lipstick, and cream rouge are taboo during menstruation for the same reason. However, it is suspected that lipstick, at least, may be used by girls who are being courted, especially at boarding school or at work outside the reservation.

386 Before metal strainers were available, liquid dye was obtained from
415 the opuntia by pressing and draining the juice from the pear seeds over a primitive strainer fashioned from Mormon tea plant stems placed across a pottery bowl. If the opuntia fruit were out of season, dye was made by boiling the dried opuntia pears.

881 Spier (1928, 326) states that a girl is "painted red, save for her face
302 which is decorated with the brown juice of the opuntia." In a personal com-
[114] munication, Spier added that the red to which he referred for body paint was
[922] red ocher. (While ripe opuntia pears are purplish red and the dye obtained from them may be more brown than red, informants referred to it as red dye.) Spier's informants thus described the use of a red paint for a girl's body and dye from the opuntia fruit for designs on her face. Spier (personal communication, 1957) states that all-over body paint was invariably red. Several informants now assert that either powdered red ocher or opuntia dye

291 ship period.

302 Spier (1928, 183-97) describes clothing and personal decorations for
832 both sexes in more detail than present informants are able to give, but
[114] some supplementary data can be added to Spier's.

291 In aboriginal days, both young girls and mature women wore a buck-
skin dress of a style copied in the puberty dress already described. For
daily wear, a dress apparently was uncolored. Its usual decoration con-
[301] sisted of buckskin fringes, hoof or bone rattles, or metal jinglers.

Feminine apparel also included hard-soled moccasins with a long upper
piece wound around the leg (Spier 1928, 191), a short apron worn in front
under the skirt, a wide buckskin apron or belt decorated with rattles, and
a woven Hopi belt (Spier 1928, 188-9). A woman originally draped a rabbit-
skin blanket around her shoulders. Spier (1928, 129) reports that the
blanket was replaced by a shawl, made from four bandannas, which was
knotted under the chin and hung to the heels in back.

[237] Two hat styles, a woven basket type and a skin hat cut from the thigh
[285] of a mountain sheep, deer, or antelope, were reportedly worn infrequently
by men in aboriginal times. Informants who described the men's hats in
some detail knew of no corresponding hat ever worn by women. Another
informant denied that basketry hats were ever worn by either sex, stating
● [415] that baskets of this shape were in daily use as food bowls, both as contain-
ers and as receptacles for food to be eaten. For protection from the sun,
women stripped the long leaves from a yucca, tore them in half, and wrap-
ped two or three of them around the head and knotted them on the forehead.

Present informants describe a later style of buckskin dress worn for
dances until perhaps about 1940. It was fashioned from two large buckskins
[177] with sides sewn together, the buckskin sometimes being stained red with
powdered ochre. A woven Hopi belt of colorful design was knotted at one
side, with its ends hanging free. Metal jinglers sometimes were added to
the belt ends and to the skirt edge. Necklaces and bracelets of silver,
[301] turquoise, or shell were worn with these dresses, and women painted their
[302] faces variously with red, white, or black designs. The rock for red and
white paint was of local origin, but the black came from some distance and
was rarely in supply.

Buckskin clothing in aboriginal times was made exclusively by men for
both sexes. Dance dresses of the above style reportedly were made by
Chief Watahomigie for his granddaughters, Harriet and Edna Yumiska, and
[768] by Dean Sinyella for his daughter, Irene, but these dresses were destroyed
upon the death of their makers. While beading was learned at boarding
[177] school by a few women now near middle age, and two or three older women
had acquired the skill elsewhere, it was seldom if ever used by the Hava-
supai.

relatives who stop by to tend the fire for warmth in winter, cook, bring food, or perform other small services. Some relative may visit at the camp for a few weeks or months, but such care is intermittent, and the unfortunate aged without children may suffer from neglect, especially if they are unable to move about or prepare food.

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Two Observed Cases

A feeble woman of 86 years was observed daily during a period of three weeks while the investigator was interviewing the daughter with whom the old lady was living at the Grand Canyon Village.

She could hear well but was almost totally blind. Her face was a mass of loose wrinkles, the edges of her eyelids barely distinguishable among the other lines unless she partially opened her right eye, as she did occasionally. Her tangled grey hair straggled loosely about her face. On a pile of dirty rags, she sat or lay beside the campfire. On her frail, stooped figure she wore the same tattered, filthy dress, sweater, and machine-made moccasins during the entire three weeks and probably slept in these garments at night. She was never seen washing, and showed no evidence of having done so.

[415]

[515]

She was fed thin cornmeal soup and small portions of whatever the family had that she could swallow in her apparently toothless state. She drank her food from a saucepan or small granite bowl, using her fingers for more solid morsels. Her son-in-law had traded some red rock powder in Moenkopi for about \$5 worth of piki bread, of which she was especially fond. She crumbled it in small pieces, scooped it up in both hands, and with head tilted back, emptied it into her mouth.

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The old woman was able to hobble about leaning upon a stick cane. To reach her toilet area she followed a mooring rope along the side of the tent in which her daughter's family lived, then followed a rope strung for her from a rear corner of the tent around some trees which removed her a little distance from the camp but not from sight. Once, when the old woman hobbled some distance from the camp gathering wood chips in a bag slung over her shoulder, she was guided back by her small grandson. Occasionally, she would wander off to visit a neighbor and would hobble around in circles until someone came to her rescue. On these occasions, the adults would call a child to her assistance and would keep shouting instructions to her and the youngster rather than themselves helping her unless no child was within calling distance. The children would lead her with a stick rather than touch her. Adults showed an equal distaste for personal contact with her, yet her toddling grandchildren were permitted to sit in her lap and her daughters-in-law readily placed their babies in her arms.

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Fig. 13. Women grinding corn. A.
Edith Peltney prepares green
corn for Johnny cake type of bread.
B. Maria Chick grinds dried and
parched corn.

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343 plaster. Marks were made on each seal so that the owner could readily identify it. These high storage chambers always kept the Indians' food supply safe from the floods that rushed down the canyon at times. The summer climate in Cataract Canyon is very hot. The rock walls absorb the heat of the sun during the day and only a part of this stored heat is radiated during the night.

252 Most of the tribe live much of the time out-of-doors. The cooking is done over an open fire and the other household work is performed under trees and brush shelters. In winter the sun lingers only six or seven hours between the cliffs, imparting but little heat, and the nights and mornings are very cold. Because of this and lack of fuel, most of the tribe leave the canyon during the winter months and live on the plateau around the head of Toposobya Trail on the east. Here there is plenty of pine wood for fuel and good grazing for the horses. On the plateau, the house is a sort of *hogan*, of logs and earth, more solid in construction than in the canyon.

264 In the summer most of the cooking is done out-of-doors and the meals are served there also. The cooking pots and pans, baskets of fruit, trays of bread, water bottles, and coffee pot are placed together on the ground. A large vessel containing ground rock salt always stands nearby, but very little is used, and practically none at all in the process of preparing food. The family groups itself about these, sitting on the ground or on boxes within easy reach of the main dish of the meal. Sometimes plates and spoons are used, but usually pieces of meat and vegetables are fished from the stews with the fingers, twigs, or knives, while mush is scooped up with chunks of bread. Generally the women and children eat with the men, but when they are visiting male relatives or friends they usually wait until the men are through.

252 Cooking utensils are of the simplest kind—cheap tin kettles, lard cans, and tin buckets. Some characteristic Indian utensils are still in use. A shallow basket woven of willow splints, lined with a coating which may be red clay, stewed peaches or other sticky substance, is used for roasting pifion nuts and corn. Hot coals are put in the baskets and shaken around until the nuts or corn are roasted.

127 The conical shoulder-hung basket is still in use for gathering vegetables and fruit. The metate stone for grinding wheat, corn, acorns, and pifion nuts is extensively used. The metate is a flat slab of hard stone (the *mano*) held in the hands. When not in use the metate is turned upside down with one edge resting on the *mano* to keep it off the ground. A brush made of mescal leaf fibre is used for cleaning the metate. Stone mortars, and pestles, are used for pounding dried meat, pifion nuts and corn, also.

177 The Havasupai have adopted the white man's mode of dress. The men wear overalls or corduroy trousers, blue cotton shirts, jumpers, large cowboy hats, and boots or shoes. Their hair is cut short. The women wear long, wide-skirted dresses, which they make themselves, of calico and print in the brightest colors obtainable. Ten yards is the usual amount of material required to make a dress. The hair hangs down in long bangs over the forehead so it almost obscures the eyes. It is cut shoulder length in back. Their hair dressing is about the only thing distinctly Indian unless it is the brightly-colored handkerchief tied loosely about the shoulders. Shoes are of American manufacture, a high top, low heel lace shoe for the older women and oxfords for the girls and young women. Moccasins are sometimes worn by the older men and women. During the warm weather the women and children go barefoot around camp.

291 Formerly both men and women wore moccasins. The man's moccasin consisted of two pieces. The sole was made of the thickest part

THE HAVASUPAI

of the neck skin of the deer. The upper was a single piece of soft dressed skin, lapping at the outside of the foot, where it was fastened with a silver Navaho button. The woman's moccasins were a two-piece upper, a toe piece and a tongue in one, and long ankle flap which was worn around the ankle. The single tie string was wound over this and its loose end tucked under a fold. 291

Jewelry worn by the Havasupai is obtained in trade from the Navaho and Hopi or from the trader's stores at Grand Canyon. 301 439

Although the Havasupai relies mainly on his agricultural products, meat is a part of the diet the year round and especially during the winter. During the winter months rabbit drives are conducted by the men and boys. They drive in a straight course instead of drawing in a circle as several other tribes do. They claim their numbers are too few for a "surround". The rabbits are shot; never clubbed. Deer, antelope, mountain sheep, squirrels, and raccoons are also hunted. The hunt is still of economic importance as a supplementary source of food. Guns now are used in hunting instead of the traditional bow and arrow of former times. 262 284 [462] [177]

A man's work consists of house building or at least performing the heavy labor such as cutting and setting posts and beams, tending his fields, dressing hides, and looking after his range cattle and horses. 462

HANDICRAFTS

The Havasupai make basketry in two techniques, twining and coil-ing. Baskets are the most important domestic utensils and in each household may be found several burden baskets, food trays, and one or two water bottles. When not occupied with her other duties, the Havasupai woman is generally engaged in her craft. 285 315 462

The best material for making twined baskets is the acacia, generally gathered green. If gathered dry, or dried and stored, the twigs are either soaked in water or buried in wet soil two or three days before using. Cottonwood and willow are used. [524]

The leaves are stripped from the twigs by drawing them through the hand protected by a piece of cloth. The twigs are split in three parts, beginning at the tip, by using the teeth and both hands. Only the two outside strips are used, the inside being discarded. A knife is used to scrape the strips to uniform thickness. To begin weaving, two pairs of twigs are held so they cross at right angles at their mid-points. A weft strip is bound two or three times across the junction and the ends are woven alternately over and under the ribs. The weaving is in clock-wise direction, with the right side (the inside of parching trays and the outside of most other baskets) of the basket toward the weaver. After twining twice around the four ribs, another rib is inserted and caught into the twin stitch. The end of the twig is softened in water so that it can be drawn in tightly by the weft. The butt of the twig protrudes on the under side of the basket beyond the stitch by which it is held. As the weaving progresses new warps are inserted, always regularly spaced. As a rule baskets begin with diagonal twining, the weft crossing two warps at a time. Some begin with simple twining, the weft crossing single ribs, but soon change to diagonal weave. Diagonal twining is much more rapid. In either case the warps are inserted one at a time, but weft elements are twined in pairs, new strips are added singly.

To finish the edge of trays, burden baskets, or water bottles, the warp ends that protrude beyond the woven fabric are split and thinned, then bent to lie along the rim, and bound together with a stitch.

The burden baskets and water bottles are decorated with simple designs made by introducing different varieties of twining and with black from the *Martynia* or devil's claw. They have loops for carrying. The 285 415 531 [462]

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531] The water bottles are first coated with soap-wood paste colored red, and then with pison gum to make them water tight.

The real artistry of Havasupai basketry is seen in the coiled trays and bowls, made of twigs of cottonwood or the three-leaved sumac. In shape they vary from round or oval plaques, nearly flat but with slightly upturned margins, to baskets or bowls of cylindrical proportions. The material is prepared at leisure and made into bundles and stored. The bark is scraped from the twigs, the wood split and scraped to uniform width. When desired for use, the materials are soaked in water to make them flexible. The sewing is on a three rod foundation. The ends of three twigs are tied in a knot. One end of the sewing element is pulled under one rod near the knot. The rods are started in a spiral and the binder stitched around them into the middle of the knot. The stitches following those of the first coil are sewed into the knot also. The coils are arranged that two rods lie along the completed coil with the third on top and between them. The stitch in the succeeding coils is meant to pass under the third rod, but in most cases it pierces this rod which the awl splits. Stitches are evenly spaced to pass between those of the previous coil, not to pierce them. After two coils are in place the end of the rods that protrude at the center are clipped off. Sewing is always from right to left; the free ends of the rods are held in place with the left hand while the right plies the awl. The sewing element is brought over the rod toward the worker and through the coil away from her.

There are two or three methods of finishing the rim of coiled baskets. Usually they are finished by cutting off three rods successively so that the coils will taper to an end. Some baskets are finished with a diagonal over and over stitch with two strands.

531] Simple geometrical figures, animals, and banded designs are made in the black outer side using the outer layer of the seed pod of devil's claw. Most baskets are of white background with black decorations, however, the reverse is sometimes found with baskets of black devil's claw background and white designs.

854 The Havasupai cradle board is an oval frame across which small twigs are laid except at the rounded ends. The frame is made of green branches which are bent, tied and buried in damp soil to set in shape.

854] The sticks that are laid across the frame are bound to it by a long strip of buckskin which passes once diagonally over the end of each cross stick. A piece of canvas or buckskin is laid along each side of the frame to cover the wrapping and is held in place by tie loops of buckskin, which are always four in number. Some cradles have carrying straps or a woven Hopi or Navaho belt may be used for the carrying strap, fastened to the frame about one-third of the distance from the top. A hoop of wicker is tied to the frame in the open space at the top and to the upper cross sticks. Two stay straps extend from the center of the upper end of the frame to two points on the hoop. A blanket is usually spread over the hoop to protect the baby's face from the sun and wind and to save him from injury should the cradle board fall.

SOCIAL ORGANIZATIONS AND CUSTOMS

594 The Havasupai family in our sense is the social unit. There is no 614 clan or gentes system, nor are there any indications that they ever existed. Individuals recognize their affiliations with their immediate relatives only; there are no other particular social or ceremonial groups. 602

The family groups are loosely bound into large ones by blood ties. 593 A group of sons reside in houses adjacent to the parent's home, together with the newly established families of the daughters of the house. The father and sons work their undivided fields with the assist-

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Though many Havasupai women use modern metal corn grinders, some still prefer the metate and mano.

Lina Iditicava is one of the oldest as well as one of the best Havasupai basket-makers.

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[p. 42]

12: Cushing E-5 (1881) 1882
NT14 Plateau Yumans NT14
Havasupai

262 tion variously, — by roasting, broiling, frying, baking, boiling, or drying. No part of the animal is wasted; blood, intestines, even visceral glands and organs, as well as the half-digested vegetable matter from the stomachs of the deer, antelope, and rabbit, being utilized as food. The liver is frequently eaten raw, immediately on the death of the animal.

412 Their implements for preparing food are few. The muller, or rubbing-stone, and the metlatl, or mill, of sandstone or volcanic rock, and various in size, flat transversely, and concave from end to end, placed upon a skin, are used for grinding; while large, round, closely-woven trays of basket work, coated with mineral asphaltum and earth, make excellent roasting pans. Earthen pots and brass kettles, procured by barter with the Moquis, serve as cooking vessels. Moqui bowls and native baskets are used in serving food, which is dipped

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from the cooking pot with large ladles of horn or wood, and eaten either with the fingers, flat sticks, or little wooden and horn spoons. Large panniers, slung over the forehead or shoulders with a broad strap of raw-hide, are used in collecting food, or carrying it to and from the distant granaries; and certain huge, small-necked, round-bottomed basket bottles serve as canteens and water-jars.

Knives of band-iron, occasionally of good steel, have displaced, save in rare instances, the original flint instruments, as have also chisel-shaped fragments of iron or steel, inserted into wooden handles, like primitive stone axes, supplanted the scarcely ruder prehistoric implement. Sharpened bone or hard-wood splints and bits of stray wire make awls and needles; and sharp bone, or chipped discs of rock, their skin-dressers. Various stone hammers and mauls, with flat stones used about the fire, complete the limited yet all-sufficient list of Havasupai household appliances.

In their agricultural operations and in the excavation of mescal pits, rude hoes,
[P. 550 A]

/100 cont. / LIKE THE FIGS, THEIR

177 peaches and apricots were derived from the whites, but so long
245 ago that they are now regarded as native.

291 The aboriginal dress of the Havasupai was simple and rather distinctive. The one arbitrary garment for the men was, of course, the breech-cloth, all additions to which were an [55+] evidence of wealth and position. For the Havasupai shirt the foundation was a large deerskin with a hole cut in the middle, like a poncho. This was loosely fastened together at the sides and held close to the body with a belt. Stitched to it were loose, baggy sleeves, open under the arms as far as the elbows. Shoulder, sleeve, and side seams were freely decorated with deerskin fringe. The leggings, close fitting and fringed at the sides, reached to the hips and were met below with high-topped moccasins. A full suit required five good-sized deerskins. The [302] men tied their long hair in a knot at the back of the head and cut the fore part in a low bang over the eyes. The principal garment of the women, which reached a little below the knees, consisted of two deerskins sewn together at the top and sides and with openings left for head and arms. It was liberally ornamented with fringe, worn sleeveless, and belted at the waist. Their boot-legged moccasins reached to the knees. The hair, cut in a [302] bang over the eyes, hung loose and unkempt.

285 The arts of the Havasupai are seen at their best in the [439] basketry. Many of their tray-shaped baskets are used for barter with neighboring tribes, who know them as "Coconino." The [415] same form, coated with earth, is used as a cooking utensil, [351] water being boiled in them by the use of heated stones; the water bottle also is of basket-work, coated with piñon gum. A 482 coarsely woven, cone-shaped burden /101/ basket is carried on the back, supported by a strap passing across the forehead. 321 Spoons and small utensils were formerly made from mountain- 415 sheep horn.

622 Chieftainship is hereditary, the voice of the tribe determining which of the male relatives of the last incumbent is best fitted to rule. The present chief is Wimái, who succeeded Kóhat, familiarly known as "Navaho." Kóhat was considered by all who knew him to be a man of unusual strength of character, broad